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PAN AMERICAN fisherman

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OUTLOOK FOR 1954

Prospects for 1954 are that supplies of fishery products probably will be no larger than this year. The total volume of these commodities available for distribution during the first half of next year may not reach the January-June 1953 level, particularly for canned fish.

However, depending on the outturn of the 1954 canned fish pack, the supply of all fishery products during the latter half of the year may be slightly larger than in July-December 1953. Civilian per-capita consumption of fresh and processed fish and shellfish next year is expected to total close to this year's rate.

With supplies of livestock products likely to be plentiful, retail prices of fishery products in 1954 may average a little lower than for this year. However, prices for some items, especially among the canned commodities, will average somewhat higher.

Imports of fresh and processed fish and shellfish in 1954, particularly of the frozen and the canned commodities, probably will be at least as large as this year. Because of the relatively smaller supply of canned fish indicated for the coming winter and spring period compared with a year earlier, the United States may be a rather attractive market during those months for imported canned fishery products.

Exports, on the other hand, may not be as large as in 1953 partly because of the relatively small exportable supplies of canned salmon, California sardines (pilchards), and anchovies which are popular in foreign markets, and partly because of the reluctance of many foreign countries to use any part of their dollar resources for the purchase of canned fishery products.

This analysis appeared in a report prepared by the Bureau of Agricultural Economics, U. S. Department of Agriculture, in cooperation with the U. S. Fish and Wildlife Service.

Effect of Oil Blasts

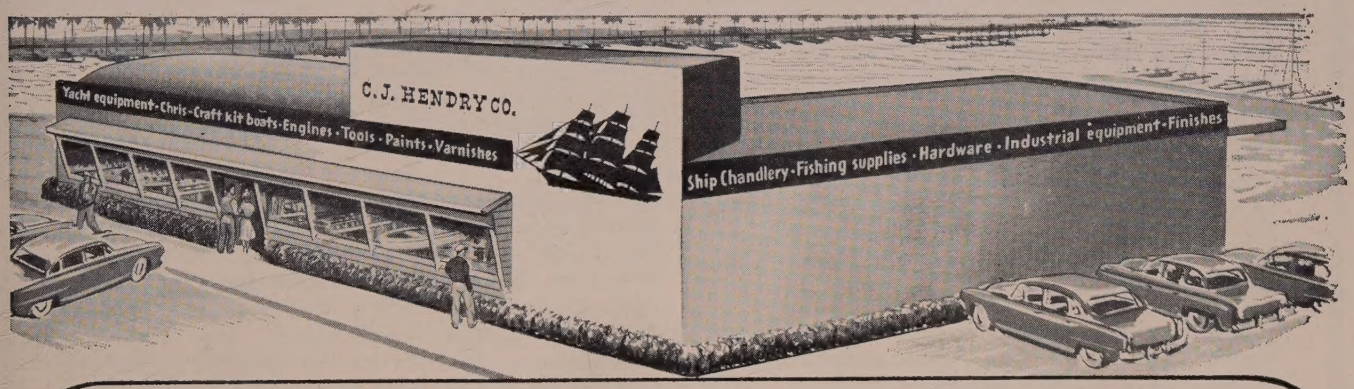
Do underwater seismic blasts used in the search for oil-bearing strata along the California coast damage the in-shore kelp beds?

The answer is "No damage," according to a survey conducted jointly by the California Department of Fish and Game with the Scripps Institution of Oceanography.

"Our conclusion is that seismic operations do not constitute a menace of kelp being continuously sloughed litter on the beaches," reports Dr. Frances N. Clark.

"The small amount of fronds torn loose by the blast, by the boat propellors or by the hydrophone cable will soon be replaced by new growth. The quantity so destroyed is too small to make much difference in the mass of help being continuously sloughed off through natural causes.

"We recommend, however, that the seismic crews be required to shoot in open spaces in the kelp wherever possible, and that boat operations and hydrophone cable placement in the kelp be kept to a minimum," Dr. Clark concluded.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San Diego gets a new marine store

California's own C. J. Hendry Co. (probably the biggest marine supply company in the world) has moved all its San Diego operations into one new building at Shelter Island. Fishing, commercial, and pleasure boat equipment will be stocked under one roof for better, faster service.

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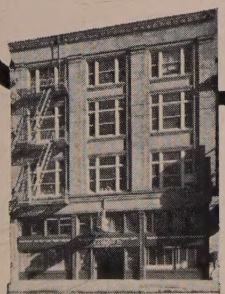

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EDITORIAL... Efficient Production

TWO things are beginning to stand out with revealing clarity in the problems facing the American tuna fishing industry. They are: (a) vessel owners must face the fact they have to compete with foreign imports that are produced by cheaper and more economical methods; (b) and, they are not likely to receive much help from our own government to equalize the differential in production costs to enable them to meet this competition.

The remedy for such conditions in most businesses today is viewed in the light of an efficiency study. More and more efficiency has characterized every branch of American industry through the years. It has resulted in jigs and fixtures that produce uniform parts in huge quantities, also in production lines where these parts are assembled quickly and accurately into the finished product.

Great things have been accomplished by efficiency studies, by experts. Experts familiar with all phases of the particular industry involved. In the old days a part requiring many operations, on many machines and by many men, resulted in high production costs. These costs kept down sales of the finished product to a mass market.

Sometimes to complete a bolt or screw or other part, it might require seven operations, on seven machines, by seven men, with obvious loss of time. To eliminate such costly methods, efficiency experts were called in; they studied matters and then designed a machine that would do all these operations with but one man to supervise it.

Such efficiency has resulted in $3,000 automobiles rolling off the Detroit assembly lines at a manufacturers' cost of something like $800. The same can be said, in proportion, about many other products that fill American homes, and which are not available in any other country of the world within a price range most people can afford.

Today, the American tuna fishing industry remains one of the few American industries not streamlined on a similar basis.

The rapid growth of the American tuna fishing industry, by the trial and error method, has prohibited the innovation of many efficiency applications. Many of the improvements that have been effected through the years were the result of necessity, rather than through designed efforts to produce efficiency in operation and reduce production costs. Now the time has come when the American tuna fishing industry must operate more efficiently to meet the threat of lower foreign production costs.

The answer obviously lies in the maintenance of hull, machinery and equipment, and to a greater extent in original design, insurance, navigation, safety, surveys, repairs and salvage costs. Vessel operational costs and maintenance costs, on a per ton basis, have not to our knowledge ever been published; but it is a matter that has harassed owners for some time. Many owners have arrived at an arbitrary figure of a percentage of the catch which is expected to take care of all exigencies.

With such a figure established by trial and error through the years, the owner appears satisfied he has achieved the optimum. But there remains one doubtful factor and that is the matter of catching enough fish to meet this figure, or more to make a profit. Since little can be accomplished momentarily to help the owner overcome this doubtful factor, the answer obviously lies along lines of more efficient operation of his vessel to reduce overall production costs, or for him to get out of this field and find a more remunerative business. Unfortunately for the industry, some have made the latter choice during the past few years, as a study of the fleet in percentages will show.

It is with a view to reducing production costs that Pan American Fisherman magazine has adopted a program, which we have termed "Keep 'em Fishing." The program is designed to make valuable data available to all fishermen and vessel owners . . . methods by which they can reduce operation costs and realize correspondingly increased profits. This is not an impossibility, but it also is not easy.

In previous issues of Pan American Fisherman we have carried several articles by qualified experts, designed to accomplish some of these things. We have received enthusiastic response from many sources regarding the program. Now, in proceeding further, it is our earnest hope we will be able to accomplish whatever may be necessary. All queries will be answered promptly, or referred to a qualified source, on any subject concerned with the industry.

We have called attention previously to two committees appointed recently for the purpose of studying design, machinery and equipment on a world-wide basis. These committees were appointed by the FAO International Fishing Boat Congress held in Paris, France, and Miami, Florida, this year. One committee will function for the Eastern Hemisphere and one for the Western Hemisphere, and it is perhaps significant to repeat that the Secretary of the Committee for the Western Hemisphere is one of our contributors, Wm. C. Miller, of San Diego, Calif.

Information secured by these Committees, relating to all matters pertaining to fishing boats, will be disseminated through the pages of Pan American Fisherman for the benefit of the industry whenever practical. The combined knowledge gained through research all over the world will place the vessel owners of the American tuna fishing industry in the unique position of having information on the finest design, machinery and equipment available today.

Fishing, like everything else, is evolving onto a more and more scientific basis. This goes hand-in-hand with efficient production methods, and efficient production methods help produce more profits.

ROBERT K. LAWSON

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BRIANT SANDO—Editor and Publisher

Associate Editor
ROBERT K. LAWSON

Advertising Manger
FRED W. WALTERS

BRANCH OFFICES

WASHINGTON 6, D. C.
744 Jackson Place, N.W.
JOHN HARMS
Telephone National 8-4123

SAN DIEGO 1, CALIF.
206 Broadway Pier Bldg.
ROBERT K. LAWSON
Telephone Belmont 3-7328

STAFF PHOTOGRAPHERS
Busco-Nestor Studios

ADVERTISING REPRESENTATIVES

Richard S. Meyer
3137 Kelton Ave.
LOS ANGELES 34, CALIF.
Telephone Bradshaw 2-1456

A. S. Babcock Co.
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About This Issue . . .

Plenty of wind as well as work is to be expected from the 83rd session of the U. S. Congress now in session. What's in the wind is summarized in our Report from Washington, starting on page 7.

*

Another glimpse at this important session is headed "Subjects in U. S. Congress" on page 15. Now is the time to tell your Congressmen and Representatives what you like and what you don't like.

*

No use to wait until after Congress acts and then beef about it . . . if you don't agree with "The Japanese Viewpoint" on page 15, or with "Tuna Prices" and the supply record on page 14.

*

"Keep 'em fishing" is the general aim of a series of articles we're running in the hope of reducing tuna boat losses. One pathway to profit is covered by "Preventive Maintenance" on page 16.

*

The regular departments round out an issue that we hope will help all readers to have a most Prosperous New Year.

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Report from **Washington**

Gleaned from the Nation's Capital by John Harms

TARIFF POLICY STEWING.--It is more and more apparent that the real fight in Congress this session will be over preventing tariffs from going any higher . . . not over lowering them.

This is the begrudging but growing feeling of many "free traders" who last year were pushing for a general lowering of tariffs in the interests of increased world trade.

"Protectionists," on the other hand, are more jubilant. They are in a position just the reverse of that of last year, when they battled for a whole session of Congress to keep an extension of foreign trade laws down to just a one-year minimum.

Administration reasoning at the time--which still may not have changed--was this: Our allies needed "trade, not aid" . . . cut down on big give-away and loan programs . . . let foreign goods in, American dollars out, to help allies fight communism and buy from us. The idea was that benefits were to come back to the U.S.

To solve the stalemate--and pacify "protectionists"--President Eisenhower appointed a 17-man Commission on Foreign Economic Policy, headed by Clarence B. Randall, board chairman of Inland Steel Co., to study foreign trade issues and come up with recommendations for this Congress.

--o--

SINCE THEN.--Randall has been riding herd on his commission to come up with something as unanimous as possible by around January 15, although he has until March 6 to make a final report. Insiders think February a more likely date. What will be in the report is still a complete mystery.

Reason for this is life within the group has been a stormy one. Same old controversy has simply been carried on inside the commission . . . protectionists among the group charge Randall is "too liberal" . . . Randall feels they are too "protective"-minded. One faction within the group is expected to issue a minority report.

This is the major reason why Washington observers . . . and Pan-American Fisherman . . . feel that very little progress can be made by the group and that the real battle will be over holding the tariff line.

This view received even more support when Ike met with his cabinet, GOP legislative leaders, and advisers for a three-day closed meeting last month to help whip up the Administration's program for this session.

There was one outstanding issue omitted from the discussions. That was trade and tariffs. It was put off until after the Randall Commission reports.

SUBSIDIES, NOT TARIFFS.--Meanwhile--perhaps in anticipation of a possible stalemate on tariffs--the idea of direct government aid for industries injured by foreign competition seems to be growing.

The idea seems to be based on the fact that this method of protection would be cheaper for many industries. As one example, the president of the Boston Wool Trade Assn. recently reported that tariffs increased processing costs by $240 million but gave only $30 million in protection to the wool-growers.

Other sickly industries, such as the U.S. lead and zinc mining industries, have also been pressing for tariff relief. But indications now are that in the meantime they'll introduce a bill in Congress to subsidize a price floor for the metals.

Of course, most industries would still prefer tariffs. But where they are concerned over the possibility of either further tariff cuts or just no increases, they're thinking of subsidies.

--o--

SUPREME COURT AND FREE FISHING.--Attorney General Herbert Brownell has challenged the suit by Alabama asking the Supreme Court to declare the tidelands oil act unconstitutional.

Alabama's suit asked that the law be nulled on the grounds that under it Alabama fishermen will be required to pay license fees to Texas, Florida and Louisiana for fishing more than three miles from their shorelines, or prohibited from fishing there altogether.

Brownell's statement, filed in the Supreme Court during the past month, charges that Alabama's suit has no place before the high court.

The main point of his brief, regarded here as the Administration's stand on the question, is that the complaint "fails to state a claim on which relief can be granted. The suit is, in legal effect, one against the United States, which has not consented to be sued."

This, Government attorneys for the Executive branches tell us, is time-honored legal language employed by any of the Executive Departments in reply to suits aimed at individual cabinet heads as part of the Government. Actually, Congress, for one example, can consent to a suit against the Government.

In the present case, if the Supreme Court decides to rule on the issue and the decision goes against the tidelands law, the Executive branch of the government would have to enforce the effects of the decision just as it would any other law which was declared unconstitutional.

However, should the Supreme Court decide not to hear the case, or hearing it rule for the tidelands law, there would be no recourse to appeal. The law would stand, pending the remote possibility of Congress changing its mind.

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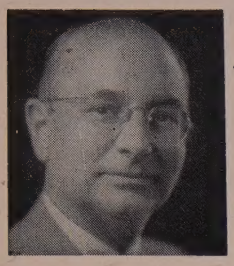
ALASKAN FISHING ANTI-TRUST?--Federal Trade Commission has issued a complaint charging a price-fixing conspiracy in Alaska's multi-million dollar salmon industry.

(Continued on page 25)



The Publisher's Page . . .

"I shall pass through this world but once. Any good thing, therefore, that I can do, or any kindness that I can show to any human being, let me do it now. Let me not defer it, for I shall not pass this way again."

Those New Years Resolutions.—This is no goody-good talk just because it is the start of a New Year. If you enjoy drinking, smoking, cussing and other such devilment, go ahead—it's your own funeral.

There's something deeper which gives us pause today. It is the number of people who wonder why be good, why be honest, why be friendly and courteous, why care what other people think.

Now, we happen to be optimists; we believe there's more good than bad in the world. But we also believe the world could do a better job in selling the value of the good old virtues. There's more involved than morals or religion, important as they may be.

Honesty, square dealing, thrift, industriousness—these and other so-called "good qualities" are more than that . . . they are the foundation for the success we are all seeking. Their observance will help us toward better business, bigger profits, greater popularity and respect.

It pays off, in the long run, to be honest instead of tricky, industrious instead of lazy, courteous instead of careless. If we don't treat people right, we won't have many friends . . . or customers. And so the little verse is appropriate at the start of this column and at the start of 1954. Happy New Year!

More and More in Fifty-Four.—One way to get more is to expect more, and then work like heck to get it. That's the good old American way, and that's the way life and business will work out for most of us in '54.

Of course business in general levelled off a bit in '53 and probably will do a little more of the same in 1954. But there's no depression in sight . . . not even a recession, say the leading economists. Just a gradual return to sound sense and sound business, based at last on sound government policies.

Some lines are down more than others, and that also will be true in the coming year. The fisheries industry is noted for its ups and downs . . . a characteristic of many food products because they are dependent upon the fickleness of Mother Nature in production as well as the laws of economics in marketing.

Many methods are changing in all branches of the food industry, but that may spell progress rather than otherwise. Anyway, changes won't kill us if we keep in step with the latest and best . . . so here's to not only a happy but also a Prosperous New Year!

The General Outlook.—All in all, the future looks bright for most people and most businesses in 1954. The prophets of gloom, who have been predicting a serious nose dive for America, have now shoved their fears ahead into 1955 or 1956.

Of course we don't know what will happen by then and neither do they. That's like predicting the weather a year ahead; it's much safer to stick to short term forecasting. So we are going along with the best brains in America who sum up the outlook for 1954 in about this manner:

General business will slide off another five or six per cent in 1954, but most folks will get along without real difficulty and the smart operators will do that and also make satisfactory profits.

Taxes will come down somewhat, but not as much as we'd like for a good many years ahead.

Inflation has been stopped and the dollar will be worth more rather than less, but never again will it have the same old value as before Roosevelt and Truman cheapened it.

There will be no major war in 1954 but the nervous international tension will continue, fed by occasional "incidents" inspired by the Reds.

A Flashback.—Maybe we caught this flashback idea from the movies. Or maybe we just like to check up on our own record. Anyway, we looked back to see what we said on this page almost a year ago. It was right on the beam then and it is right on the beam now. So we repeat:

"Times should stay good for several reasons. First there is the steady increase in the population of the country . . . thousands more to be fed and clothed and housed.

"Perhaps even more important is the steady progress of the United States in science, inventions, and higher standards of living. America has surpassed all other countries in labor skill, management ability, and the genius for making machines do the work of men.

"American technical progress during the last generation has made monkeys of the defeatists who said this country had reached the limits of its growth and was now in a stand-still or mature economy.

"The American appetite for superior products and comfortable living is a guarantee that the long-range trend in this country will be toward more and better business.

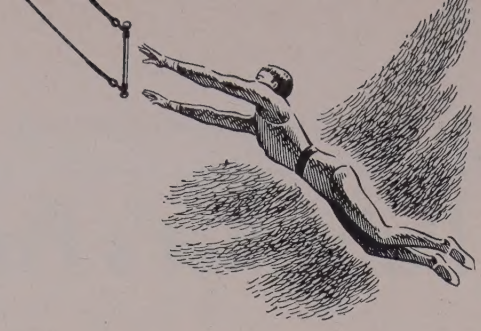
"There will be more new products, greater volume of sales, and a higher standard of living for our people, we firmly believe, than was ever before enjoyed in the history of the world."

What Do You See?—Most of us miss a good many things we should see as we go through life. Like the duck hunter out with a new dog. When he shot a duck the dog walked out on the water, retrieved the bird and walked back to shore.

Knowing his friends would not believe this, the hunter took a neighbor along on the next trip. True to form, when either of them shot a duck the dog would walk on the water and bring it in. After bagging their limit, with the neighbor making no comment, the hunter said, "By the way, did you notice anything unusual about my dog?"

"I sure did," his friend replied. "The son of a gun can't swim."

BRIANT SANDO



The man on the flying trapeze has his ups and downs . . . much like the man in the tuna industry these days.

TUNA INDUSTRY . . .

Review and Preview

A LOOK AHEAD

THE threat of ever-increasing Japanese imports to the United States remains the one unknown factor in considering the American tuna industry. Just an even break, in the form of relief from excessive Japanese tuna imports to this country, will give our home industry a badly needed opportunity in 1954 to recover from the adverse effects of these imports over the past five years.

To prove this point, these actual statistics show the direct effect of imports upon our home fleet. Most significant are the proportionate catch figures in percentage of the actual American market requirements over that period.

Imports

For frozen tuna, in 1948, 9,143,000 pounds were imported; in 1949, 20,606,000 pounds; in 1950, 56,712,000 pounds; in 1951, 62,085,000 pounds; in 1952, 69,003,000 pounds; and for the first ten months of 1953, 82,577,000 pounds.

For tuna in brine, in 1948, there were 1,000 cases imported; in 1949, 4,000 cases; in 1950, 18,000 cases; in 1951, 445,000 cases; in 1952, 906,000 cases; and in the first ten months of 1953, 1,105,000 cases.

Taking all sorts of tuna imports and converting them into standard cases of tuna, the figures show: in 1948, 394,000 cases; in 1949, 214,000 cases; in 1950, 1,756,000 cases; in 1951, 617,000 cases; in 1952, 1,110,000 cases; and in the first ten months of 1953, 1,299,000 cases.

Frozen tuna converted into cases and added to this total shows: for 1948, 613,000 cases; in 1949, 709,000 cases; 1950, 3,117,000 cases; in 1951, 2,107,000 cases; in 1952, 2,766,000 cases; and for the first ten months of 1953, 3,281,000 cases.

☆

1954 OUTLOOK IN BRIEF

Generally speaking, as we start the New Year, prospects are bright. The demand for canned tuna looks good. The supply of fish does not appear to be so high as to depress the market. Relations in Latin America are improved and improving. Fishing conditions can reasonably be expected to improve over this year.

The one unknown factor, which makes most predictions uncertain, is the danger of suddenly increased imports of tuna either in the canned or frozen form from Japan. Without some government protection this could flood the U. S. market again and break the price of fish in the United States on the canned level or on the frozen level. Other important points are developed in detail in this article.

☆

Fleet Catch

In 1948, the catch of tuna brought in by the bait boat clippers amounted to 59.6% of all the tuna sold in the United States; in 1949, the figure was 57%; in 1950, 47.2%; in 1951, 56%; in 1952, it dropped to 43.6%; and in 1953 it reached an all-time low of 38.3%.

These figures are particularly significant when compared to imports for corresponding periods, especially in showing the direct effect of imports upon the fleet. For example, the market glut of tuna imports of 3,117,000 cases in 1950 dropped the fleet catch to 47.2%. The following year, 1951, when imports dropped to 2,107,000 cases, it allowed the fleet a staggering recovery to within one per cent of the previous years, 57%, or 56% of the total consumption for 1951.

Vessels

The bait boat fleet has continued to shrink during these past six years while imports mounted almost steadily in proportion. For the year ending on December 31, 1948, there were a total of 189 bait boat clippers. During that year there were 33 additions to the fleet, and five boats were either lost or transferred elsewhere.

In 1949, there were 193 boats, 13 boats were added to the fleet, and nine were either lost or transferred elsewhere; in 1950 there were 199 boats in the fleet, and 11 vessels were added to the fleet with five lost or transferred elsewhere; in 1951 there were 211 boats in the fleet, and 22 boats were added with 10 lost or transferred.

By 1952, there were 192 vessels in the fleet, with only two being added and 21 either lost or transferred; 1953 saw but 183 vessels in the fleet at the end of the year. During this year two vessels had been added to the fleet; one, a reconverted wartime ship actually built in 1945, and the other a fishing vessel that had been fishing on the east coast and transferred back here. During 1953 there were 11 vessels lost or transferred, and the fleet had become

reduced to a number less than the fleet total in 1948.

At least seven of the vessels in the 1953 list of 183 vessels are obsolete, and are either not fishing or fishing only intermittently. Because of the lack of replacement of vessels in the fleet, attributable to insufficient profit in operation, the average age of the fleet has increased to nearly nine years—the highest average age of the fleet in the history of the industry. (Fortunately, some new vessels are now being planned.)

Canneries

During this same period of years, shuffles in management and ownership has resulted in the consolidation of several canneries; the obliteration of others; the rennovating of one big cannery and the building of another, the biggest ever in the history of the tuna canning industry.

All this has tended to put the fishing boat owner in the spot of selling his fish to a select controlling few. Thus when the market is glutted with foreign imports the cannery can—and does—tell him to tie his boat up in the harbor and wait for the starting signal when the inventories are relieved.

Among cannery shuffles over this period was the Westgate Packing Company, now completely out of business. Westgate joined with the Sun Harbor Packing Company and they are now doing business as the Westgate California Tuna Packing Company, in San Diego. Involved in the deal also was the People's Packing Company, which was absorbed by the West Coast Canning Company, in Long Beach. This series of moves resulted in completely eliminating two canneries from production.

In Terminal Island, the French Sardine Company built a new multi-million dollar cannery last year, changed its name to Star-Kist Foods, Incorporated, and are in full operation there now. This firm has kept their High Seas Packing Corporation plant in San Diego as a part-time operation to handle albacore and some bait boat tuna.

Research

The Inter-American Tropical Tuna Commission was inaugurated under treaty between the United States and Costa Rica, in 1950. The Commission established headquarters at Scripps Institution of Oceanography, in San Diego in 1951, and has been engaged in research on tuna for the past three years. Panama adhered to the treaty establishing this Commission in September, 1933, thus making three nations in the Commission now engaged in specific research on tuna.

During the same period the State of California, receiving back from the armed forces their research vessels used during the war, again joined American Tropical Tuna Commission. The State has developed a tag for tuna, and for the first time tuna are being tagged and recovered in the area between California and Peru.

Scientists travel aboard the tuna clippers, catch the fish and tag them in the course of regular fishing trips of the clippers. Such trips to date have been made aboard the *Intrepid*, *The Santa Helena*, *The Defiance*, and one or two other bait boats. It is intended, during the next two or three years, to broadly expand this field of work for the purpose of tracing the migrations of tuna through this area.

The State Bureau of Marine Fisheries, together with the Inter-American Tropical Tuna Commission, ran an expedition down through the tuna area to and beyond the Galapagos during the early part of 1953 for the purpose of finding out whether the population of large spawning tuna was to be found in the sub-surface layers where the fishery did not operate on them, as was the case in the Central Pacific. Large populations of spawning tuna were found. The two organizations, together with Scripps Institution of Oceanography with their vessel *Horizon* and in conjunction with the United States Navy, ran a two-vessel expedition down through the area during 1952 to determine the general pattern of ocean current circulation.

During 1948, there was established at Honolulu, the Pacific Oceanic Fisheries Investigations of the U.S. Fish and Wildlife Service, to work entirely on the research of tuna. This orgazation has, in the intervening years, investigated the tuna populations lying between Hawaii and Samoa, and the ocean areas between there and the American mainland. They have discovered and plotted out considerable populations of deep-water-tuna. A commercial fishery was started experimentally on this population of fish in 1953, and will be expanded materially in 1954.

Market

In 1948 the market for tuna in the United States was in the neighborhood of 8,000,000 cases. Since that time there has been a steady growth, and in 1953 the U.S. consumption of canned tuna had risen to around 11,000,000 cases.

A great influx of imported frozen tuna during the last six months of 1950 clogged the market thoroughly during the whole of 1951 and a part of 1952. This mass of tuna, finally absorbed during the early part of 1952, was followed by extremely heavy imports of tuna canned in brine, coupled with still higher imports of frozen tuna that same year. The combined effects of these imports has pretty well worn off by the latter part of 1953—but this situation may be only temporary.

On the brighter side is the fact that tuna catches in both Japan and the United States, during 1953, were somewhat below normal. This should allow the market, depending upon cannery inventories, to pick up with the supply end of the business. Actually, there is no scarcity. The inventories on hand are about the same as they were at the beginning of 1953; but there does exist the possibility of increased market demands, which may reflect to the advantage of the fishing fleet from a bartering standpoint.

Exploration

With a view to the latter possibility, the Southern California fishing fleet is on the outlook for additional sources of raw materials. During the

(Continued on page 23)

Everybody is trying to stretch the dollar . . . and see how far it will go in 1954.

Survey of the Domestic Tuna Industry

PART V

CONCLUSION

Excerpts from a comprehensive study of all phases of the industry, recently released by the U. S. Department of the Interior, Fish and Wildlife Service.

Manifold considerations concerned with surveying the long-range position of the domestic tuna industry in the domestic economy have been detailed in the previous chapters. It has been noted that the outlook for consumption of products of the tuna industry is a bright one. On the other hand, the prospects of major relative cost reductions in fishing and processing are rather bleak. Distribution, which is responsible for only a small part of the ultimate cost of canned tuna, does not offer any great prospect of cost savings as an aid in improving the position of the industry.

In the light of these and associated determinations, suggestions are made herewith as to what may be done by the domestic tuna industry—fishermen, processors, distributors, and importers—and the Federal Government to promote necessary adjustments so that the industry may achieve and maintain a sound position in the domestic economy.

Before considering what the Federal Government could or should do for the tuna industry, it is necessary to outline what the tuna industry has done for itself during the economic trials experienced in the past two years and what it can do in the future. A review of its recent activity indicates that it has not been inactive in helping itself to surmount some of its problems.

Among the small craft fishermen there has been a considerable increase in the number of fishery cooperative marketing associations organized in the Pacific Coast States during the last two years. Most of these associations are groups of small boat operators who have organized in this manner to improve their lot. In March, 1953, there were more than 15 fishery cooperative marketing associations controlled by small craft commercial fishermen actively participating in the marketing of tuna or purchasing supplies for operators of craft in the tuna fishery.

The large craft operators have also been active. The American Tunaboat Association, Inc., has organized as a fishery cooperative marketing association. The Fishermen's Cooperative Association of San Pedro, Inc., which has been operating for many years, has become more and more active with the business affairs of its members.

Fishermen, processors, distributors, and importers have not been laggard in carrying out their functions expeditiously and in line with the statements contained in Committee on Merchant Marine and Fisheries Document No. 18, 81st Congress. In this Document the Secretaries of State and Commerce stated that:

"Every improvement that can be made in fishing vessels, processing equipment, transportation and distribution facilities, and in techniques used should help to reduce costs and increase returns to the industry."

Action in Four Directions

The tuna industry has taken action along the following lines:

1. Large expenditures have been made for nationwide advertising and merchandising by the domestic tuna industry. In addition, direct advertising has been conducted by importers. The latter, while not as great in dollar amount, has been intense in certain selected areas of the Nation.

2. Packers have mechanized the canning of tuna to a large degree and are continuing efforts toward mechanization of the butchering and cleaning process. The packers also have cooperated with the Food and Drug Administration in developing Federal standards for tuna.

3. Distribution costs, including transportation and selling charges, have been held to a minimum. Retailers are handling tuna at relatively reasonable margins and, in many cases, are taking lesser margins than on other comparable foods.

4. Fishermen have been improving their vessels and gear, so far as they are financially able. New communications, navigational, and fishing aids are in evidence on the tuna fleet.

The fishery cooperative marketing associations previously mentioned have effected some monetary savings for their members. This has been done, for example, by purchasing group insurance at lower rates, purchasing supplies on a quantitative basis and reselling them at savings to their members. In addition, some of these associations have handled the catch of their members and arranged for its sale, returning profits from such activity to the members. Those associations which have not done this have at least bargained collectively with canners and wholesalers to obtain the best possible price for the sale of members' catches.

The latter has been particularly true with respect to the American Tunaboat Association, Inc., and the Fishermen's Cooperative Association of San Pedro, Inc., the two large fishermen's groups in the tuna industry. These associations have been working toward improving conditions of sale for the members' products. Some recent accomplishments include establishment of prices for a better defined and longer period, guarantee of a market for three capacity trips for bait boats, limitations of the right of the canners for imposing limits on loads of fish, and arrangements for

canners to allow fishermen to operate to a greater extent in the more productive seasons.

While the tuna industry has been very active, as organizations or individuals will be when faced by economic trials, there are some suggestions which can be made to the industry for further consideration in improving its lot.

Some Suggestions

It is recommended that the canners expand and improve their advertising efforts. This applies as well to importers. Market development can also be undertaken in conjunction with or supplemental to advertising. Among the aims should be expansion of consumption among low income groups and in the rural market, and the greater usage of tuna, for example, in hot dishes, etc. Canners could investigate thoroughly the possibility of expanding the consumption of tuna by marketing new products such as tuna combined with other ingredients in ready-to-serve form. Canners might also continue their work on technological improvements in processing. While the products of the tuna canneries are of a high quality, no effort should be spared in producing products of even better quality at competitive prices.

Canners should also consider the advisability of collecting, tabulating, and making available more fully and more widely monthly data on stocks of canned tuna at processors' and distributors' levels.

Fishermen should test newly located tuna grounds to determine if operating costs can be lowered. Experiments with long-line methods of taking offshore sub-surface stocks of tuna to determine the profitability of this method should be undertaken to prepare the industry for its use in the future, if necessary.

Since the actions and efforts of the tuna industry alone have not solved, and do not give promise of solving, its problems it is necessary to consider what aid the Federal Government might offer the industry. It is suggested, therefore, that the Federal Government consider the following actions:

Federal Assistance

1. Consideration should be given to the formulation of an international commodity agreement to cover trade in tuna. Such an agreement would be similar to, although not exactly the same as, the International Wheat Agreement of 1949, to which the United States is a party. At the outset the United States might invite those countries which are important producers, processors, and consumers of tuna to join with it in preparing such a document for trade in tuna. The objectives of such an international commodity agreement would be to stabilize production, processing, and trade, increase consumption, and make the wisest possible use of international tuna resources. In addition, such an agreement would supersede any unilateral action undertaken by governments now or in the future.

Such action would not be contrary to our commitments under the General Agreement on Tariffs and Trade. Any document consummated would necessarily have to be approved by the United States Senate and legislation related to effectively carrying out the agreement would have to be acted upon by both Houses of Congress. Exploratory steps in this matter are being taken by the Department of the Interior.

2. The several different forms of tariff rates on the various products of the tuna industry should be properly related. There is no logical relationship between a 45% ad valorem duty on tuna canned in oil, a 12½% duty on tuna canned in brine, and no duty on frozen tuna. The actual level of rates for these products is not suggested herein, only the suggestion that whatever the actual levels of rates may be, that the duties on the various products be properly related. The appropriate Executive and Independent agencies can furnish technical information in this regard which would help to accomplish this.

3. The Federal Government should continue and strengthen tuna research programs along the following lines:

a. Scientific studies of the tuna and bait populations to provide the basic knowledge of the resources which is now lacking, including adequate support of the Inter-American Tropical Tuna Commission.

b. Exploratory fishing to point the way for industry development of new tuna grounds.

c. Gear research and experimental fishing, in cooperation with the industry, to devise better and more efficient methods of locating and catching tuna.

d. A full scale research program aimed at finding an alternate tuna bait which would relieve the fleet of its dependence on foreign bait grounds.

e. A marketing and economic research program, comparable to that provided competing foods, to aid the industry in expanding consumption and finding solutions to its economic problems.

4. Enact into law the provisions of S. 1731, 83rd Congress, which provides that $1,000,000 of "Section 32" funds be used for technological and related research, and educational service, and market development work for the fishing industry. These funds are derived from 30% of the duties on all imported products, and are available to the Department of Agriculture for assisting in the marketing of agricultural products. Devoting an equitable portion of these import duties to help solve the problems caused by the imports of tuna is a logical use for the funds. Legislation of this type has the support of important segments of the domestic fishing industry.

5. In view of the existence, on a large scale, of fishery cooperative marketing associations in the tuna industry, enact into law the provisions of S. 1902, 81st Congress, which would permit these associations to have access to the Bank for Cooperatives in the Farm Credit Administration. Fishery cooperatives do not now have such access. It would aid them to have some of their financing done through this experienced agency in the same manner as do agricultural cooperatives. This legislation would not set up a duplicating agency. It would simply allow the fishery cooperatives to participate in the present services of the Bank for Cooperatives under regulations to be prescribed by the Secretary of the Interior.

6. Efforts should be continued toward obtaining a satisfactory solution to the problem of territorial seas and fisheries jurisdictions therein and to clarify the rights of United States fishermen. *

Tuna Prices Go Up

The American Tunaboat Association has concluded agreements with three major Southern California canneries for new yellowfin and skipjack prices.

The new prices are $350 a ton for yellowfin tuna and $310 a ton for skipjack. Both are increases of $30 a ton over 1953 prices.

Harold R. Cary, general manager of the Association, said new contracts have been signed with Star-Kist Foods, Inc., Van Camp Seafood Co., and California Marine Curing & Packing Co.

"We expect to conclude agreements with other canneries soon," Cary said.

Westgate-California Tuna Packing Co., which negotiates with boat owners individually, previously signed a contract with most of its boats providing the same price increase.

Canneries agreed not to renegotiate the contract in July, at the height of the albacore season, as in previous years, the new agreement being effective until Dec. 31, 1954.

Fish and Shellfish Outlook

Fish and shellfish will be in ample supply during January. Although activity in the fisheries is at a low point for the year at this time, some fishing is carried on in January in most of the coastal areas of the United States. A few fisheries, particularly those of Florida, are seasonally near their peak of production. Supplies of frozen fishery products are, in general, near normal.

The listing below shows fresh and frozen products which should be plentiful in the respective areas during January. These supply conditions are usually reflected in large territories surrounding the producing localities, primary markets and secondary markets indicated, as well as in distant regions normally supplied from these areas. A larger number of species is usually mentioned in cities such as New York and Chicago, which are chiefly consuming and redistributing centers, as compared with a smaller number in areas of large-scale production such as New England, the Gulf Coast, and the Pacific Coast.

New England: Cod, flounder and sole, haddock, pollock, clams, oysters, scallops.

New York: Cod, flounder and sole, haddock, halibut, mullet, pollock, scup or porgy, sea bass, smelt, Spanish mackerel, whiting, clams, lobsters, oysters, scallops, shrimp, spiny lobster tails.

Florida: Bluefish, groupers, king mackerel, mullet, red snapper and other snappers, sea trout, Spanish mackerel, crabs, shrimp, spiny lobster or sea crawfish.

Eastern Virginia, Maryland, and North Carolina: Croaker, fluke or flounder, mackerel, sea bass, scup or porgy, crab meat, oysters.

Gulf Coast: Mullet, red drum, red snapper, sea trout, oysters, shrimp.

Chicago: Carp, cod, halibut, lake herring, lake trout, ocean perch, sauger pike, whitefish, yellow pike, oysters, shrimp, spiny lobster tails.

Seattle: Halibut, rockfish, salmon, sole, clams, crabs, oysters, shrimp.

California: California halibut, flounder and sole, mackerel, rockfish, salmon, abalone, clams, crabs, oysters, shrimp, spiny lobster.

Stocks of fish and shellfish in cold storage on December 1 totalled 179 million pounds according to preliminary reports. The total holdings were 15% below those of a year earlier, due to substantial decreases in the fresh and salt-water fish categories. The percentage increase of total stocks during the previous four months has been at a lower rate than usual.

Holdings of salt-water fish on December 1 totalled over 128 million pounds as compared with 168 million on December 1 of 1952. This was a decrease of about one-fourth. Stocks of fresh-water fish totalled 10½ million, a decrease of about 36% from a year earlier.

On the contrary, holdings of shellfish, about 41 million pounds, were over 14 million pounds above those of the previous year, an increase of about 55%. Salt fish holdings stood at nearly 21 million pounds, having decreased about 2 million pounds, or 9%, since a year earlier. Holdings of smoked fish were around 1¼ million pounds or 15% less than those of a year earlier.

Among the items held in largest volume is shrimp, stocks being over 26 million pounds. Shrimp, also led the field in increases of holdings over those of a year earlier, up nearly 10 million pounds.

Assistant FWS Director

Secretary of the Interior Douglas McKay has announced the appointment of Arne J. Suomela, Portland, Oregon, as Assistant Director of the Fish and Wildlife Service.

Mr. Suomela, who has been Oregon State Director of Fisheries, since 1945, made a special survey of the Alaska fisheries for the Department of Interior last summer. He is considered one of the Nation's authorities on the salmon fisheries and has done extensive research in Alaska and the Pacific Northwest.

The Japanese Viewpoint

This editorial from "Nippon Suisan Shimbun" was translated by W. G. Van Campen of the U. S. Pacific Oceanic Fishery Investigations. While it contains little factual information, it holds some interest as a reflection of Japanese opinion concerning the joint U. S.-Japanese tuna fishing enterprise scheduled to get under way in Samoa this month.

Japanese tuna boats are now to fish in the waters around the Samoa Islands. The value of the fishing grounds of that area was established by Japanese fishing boats before the war, but since the war it has been practically impossible for them to operate there because of supply problems associated with the lack of bases.

Now, however, the sale of fish to the cannery in Samoa has been arranged and the catch is to be turned over to a freezer ship belonging to the canner (Van Camp's) which will at the same time supply necessary materials thus making fishing in the area possible.

Of course, large tuna boats would be able to operate independently, but in the present case the fact that medium and small tuna boats have been enabled to operate there is of deep significance from the point of view of the present condition of Japan's fisheries.

After the war the operating radius of Japan's fishing boats was markedly decreased by the strategic MacArthur Line. Japanese fishermen hoped that this Line would be removed as early as possible, and this hope was finally realized on April 25, 1952.

After the MacArthur Line was done away with there appeared the Rhee Line and the confiscation of vessels by the Chinese communists, which had the result of restricting in an extreme degree fishing operations in Korean waters, the East China Sea, and the Yellow Sea. Furthermore, at present the degree of utilization of the North Pacific fisheries is markedly restricted. Under these conditions the South Seas fishing grounds have become the only out for Japan's fisheries.

The fisheries authorities have set up their policies for the conversion of fisheries with emphasis on the southern fishing grounds and as an emergency measure they have decided to divert about 100 mackerel fishing boats and other vessels which have been closed out of their grounds by the Rhee Line into the southern tuna fishery.

However, there is a limit to the southern tuna grounds and particularly if it comes to the diversion of medium and small sized fishing vessels it may well be that these tuna grounds will reach the saturation point in the near future. In this sense it is to be hoped that one further step forward will be taken and *that bases may be established in the South Sea islands*, and although the present fishing venture in Samoan waters is not a pure land-based operation, it is in general accordance with this hope.

At the same time, it may be a fine thing for the future of the southern tuna fishery that this way has been opened to it. The present plan, being the first such operation, involves only seven fishing boats, but if the plan progresses as scheduled the number of boats probably will be increased.

Japanese Five-Year Plan

The Japanese Tuna Fishery plans to build 230 steel vessels with a total tonnage of 61,500 tons, and 1,280 wooden vessels totaling 107,400 tons, in the period from 1954 to 1958. At the end of 1952 there were 1,165 tuna boats (103,814 tons); and by the end of 1958 there will be 2,225 tuna boats (231,320 tons) in the Japanese fishery.

The planned cost of this construction will be 2.1 billion yen (US$5.8 million) for the steel vessels, and 3.5 billion yen (US$9.8 million) for the wooden vessels, to be financed for the most part by the Japanese government. The tuna production goal for 1958 is 552,775 metric tons as compared with 237,026 tons in 1952.

SUBJECTS IN U. S. CONGRESS

The Second Session of the 83rd Congress, now in session, is expected to consider and act on many bills of particular interest to fish canners, some of which are the following:

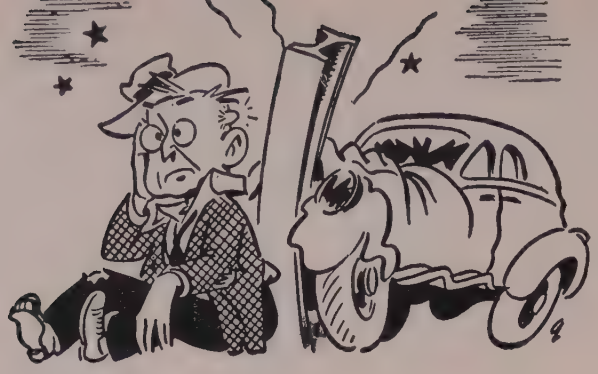
The extension of the Reciprocal Trade Agreements Act and the report of the Randall Commission on an international trade policy for the United States; Alaska Statehood; tuna tariff legislation; proposals to regulate Alaskan salmon fisheries; implementing legislation concerning the North Pacific Fisheries Convention; and appropriation bills for regular governmental fishery activities and special appropriations for the work to be done under the various fishery treaties.

One bill which may be expected to be pushed rather forcefully is the bill introduced several times in past years by Senator Saltonstall (R., Mass.) and others, to provide a substantial increase in funds for more intensive educational, research and marketing activities relating to fishery products.

The bills introduced in the past have generally provided for a fixed amount of money to be made available for these activities. In a recent statement issued jointly by Senator Saltonstall and Senator John Kennedy (Mass.), however, it is revealed that they plan to introduce a new bill that would make available for such work *all revenues* from duties on imports of fishery products. The two Senators said they had sent letters to all Senate members from states having a substantial fishing industry, asking their colleagues to join them in sponsoring the legislation.

The letter said that the domestic fishing industry is in a difficult position due to rising imports, decreased domestic landings, depletion of fishing grounds and a lack of improved techniques. It reported that the basic recommendation of all recent studies is for an increase in research and development activities by the Fish and Wildlife Service.

Since the difficulties of the industry stem largely from the imports, the letter said, the most appropriate source of funds for this purpose is the import fund. Now, however, the only portion of such revenue earmarked goes to the Department of Agriculture for promotion of other products, the Senator said, and only $175,000 a year of duties goes for fisheries purposes.



Tuna vessels, like automobiles, need proper maintenance methods or disaster may strike.

Pathway to Profits . . .

PREVENTIVE MAINTENANCE

For Tuna Vessels

By ROBERT K. LAWSON

This is the first article in a series showing how to keep tuna boats profitable by maintaining them in tip-top condition. The ideas expressed were drawn from discussions with top-flight marine engineers, thoroughly acquainted with the problems of the American tuna fishing vessel fleet.

INTERNATIONAL conditions continue to stress the need for more food. The tidal waters of the world offer the last major natural resource to supply this great need; no other single source is as readily available as nature's great pasture for the livestock of the seas.

With a seafood market that is world-wide and virtually unlimited, next comes the ability of the fishing vessels to supply the demands.

One drawback to steady world markets in the past has been the inability of the fishing vessels to operate every day in the year. Frequent breakdowns at sea and long delays for damage repairs and maintenance overhauls, as a direct result of overlooked wear and tear, have prevented the development of our fleets as competitive food suppliers.

This indicates something amiss in the operation of fishing vessels during past years, and a need for the fishing industry to meet the challenge of improved operation procedure which will help eliminate costly layups.

Experience shows that corrective maintenance programs have been costly; crews have been unhappy; lay-up time has been excessive; low tonnage has been caught, and consequently the operation has been unsatisfactory from a financial standpoint.

Where sound preventive maintenance programs have been observed, crews have been happy in their jobs and the best qualified men have been eager to retain their berths on these vessels. The statistical results of such operations indicate a maximum number of days spent at sea; lay-up time held to a minimum; and good financial returns enjoyed by the owners and the crews.

Vessels operated in conformity with an engineered preventive maintenance program, compared with those working under a corrective maintenance program, show conclusively that the former is the economically sound method.

There's a maintenance problem with every physical being or mechanical thing in the world. Just as the physical man needs medical science to prevent ill health or sickness that may result in early death, so mechanical things need preventive maintenance to eliminate excessive wear and tear during the normal period of usefulness, or mechanical failure that may result in extensive layups or financial loss.

Neglect of mechanical operating equipment until breakdowns occur is costly and time consuming. Modern design improvements of hull, machinery and equipment are based upon the application of an equally well designed maintenance program.

With internal combustion machinery, the modern trend is toward increased horsepower, through higher gearing ratios and faster turning engines. Manufacturers are constantly conducting tests and actual field trials; chemical and metallurgical science also have become increasingly important. Thus vital reciprocating and revolving parts, as well as stationary parts, are being more lightly constructed and of newly developed materials.

While such materials are capable of producing better service than the slower speed engines of the past, they often possess inherent characteristics that demand attention. In the old type slow turning engines used in the fishing fleets, immediate damage was not occasioned through continued operation of stuck piston rings, or other faulty parts, until repairs could be made in due course. But in modern high speed engines the malfunctioning of essential parts results in almost immediate difficulties.

These are a natural result of the high operating pressures and temperatures in the modern engine, necessitated through the increase in horsepower output and higher frictional speeds which quickly remove lubricants from the working parts. Then wear occurs and the only certain way to offset high costs in high speed engine repairs is to provide proper preventive maintenance, foresee impending trouble and make corrections before serious damage occurs.

The same policy should be applied to all other components of the ship. Many useful and practical programs have been developed and recorded by competent persons for the use of

those desiring to benefit from them. Virtually every piece of equipment sold today is accompanied by an operating instruction and maintenance manual.

The way to avoid continual teardowns and layups has been found and registered by the operators who practice a soundly engineered maintenance program. Their records show that prior to all serious physical failures certain warning signs always appear . . . just as semaphores on a railroad indicate to the engineer that danger lurks ahead.

The operators of equipment and the persons charged with its care must be capable of recognizing the warning signals, although sometimes the physical indications are not sufficient by themselves to form the basis for proper diagnosis of impending trouble. Operators should keep records of all indications, prepared in such a manner that when evaluated by a competent engineer an accurate diagnosis of the physical condition of the machinery can be made.

On internal combustion machinery, daily notations should be recorded on the sounds of the engine, color of exhaust, and the amount of vapor appearing from the crankcase through the breather. Also an accurate record of the exhaust temperature, pre-turbo temperature, water temperatures to and from the engine. Lubricating oil temperatures to and from the cooler, and lubricating oil pressures should be recorded daily.

In addition, weekly and monthly records of crankcase pressures, air manifold pressures, drops in pressure across the lubricating oil filters, and checks for internal pressure leaks in addition to the total number of hours operated. Valve clearances, brake horsepower hours per gallon of lubricating oil consumed, cranking revolutions per minute, checks of safety devices, amount of drainage of moisture from fuel oil and air tanks, and fuel oil consumption, in addition to the results of periodic laboratory tests of lubricating oil samples should be kept.

From such records a vivid line graph can be developed and overlaid on the manufacturer's performance graphs, giving a clear picture for an analysis of the entire condition of the unit.

This same type of record can be kept for physical hull condition wherein any changes noticeable from day to day while at sea can be recorded for periodic study which will reveal the approaching necessity for renewing a section of planking, changing a sea valve, adding or refastening a section, or doing any one of numerous essential items which if neglected lead to costly damage repair or total losses.

The success of such preventive maintenance programs depend entirely upon the application of the personnel to their respective duties and the type of records that are kept. Further, the records must be periodically evaluated by competent engineers. With this data and an accurate analysis, corrective measures can be made promptly with minimum cost and lay-up periods.

Then with the vessels of the commercial fishing fleet in such physical condition that they are continually available for safe sea service in their intended trade, the owners and crews should reap higher financial reward for their labors, and the fleet can compete in properly supplying the world food market. ★

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The GLOBE

An International News File Compiled from FOREIGN REPORTS

Azores.—Two Portuguese tuna vessels (Rio-Vogua and Rio-Agueda) made large catches of albacore tuna off the Azores the past summer, and it is expected that new markets will be sought in Portugal. Albacore tuna are reported to be abundant in these latitudes.

Colombia.—The Colombian Government has authorized a firm operating a Barranquilla fish cannery to contract with a United States firm to bring a U. S. purse seiner to fish in Colombian waters, says a U. S. consular report. The catch of this vessel will be deposited with or divided with the Barranquilla cannery. This cannery recently built a refrigeration plant for storing fish; and the Government is looking into the prospects of increasing storage space for frozen fish in major cities of the interior for domestic consumption.

Denmark.—Seeking to extend the fishing limits of the Faroe Islands from three to four miles, Denmark has approached the British Government with a view to a revision of the 1901 Convention, which defined international and Danish fishing limits and the question is to be discussed by fishery experts at a meeting in London soon. This follows similar disputes last year with Norway (settled at The Hague Court last year) and then the Icelandic people wanted to extend their limits.

France.—More than 150 canneries along the coast of France can about 900,000 cases of sardines annually. These, situated near fishing ports, employ about 500 men and 13,500 women. About 20,000 fishermen are engaged in fishing sardines for these canneries.

Greenland.—An unusually rich ocean perch fishery has been developed in West Greenland by Icelandic trawlers and record catches have been made. A number of fishing vessels have gone to West Greenland to fish for ocean perch, which will be filleted and shipped to the Russian market.

Japan.—The Tokyo Suisan Kogyo Company, which has signed a contract to sell fish to Van Camp, has sent seven tuna boats of the 120-ton class to Samoan waters. Because of the terms on which Van Camp has chartered the mothership, the operation is scheduled to continue until the end of March.

Mexico.—Pressure to revoke existing export taxes is mounting in Mexico because exports must be increased to compensate for increases in the price of imported goods. The Government is considering a project on fishery products to return half of the tax for loans to fishing cooperatives for new equipment to increase the flow of fresh fish to city markets.

Despite the fact that the Mexican coastline is one of the most productive fishing areas in the world, fish is a minor item in the Mexican diet which is deficient in animal protein. Refrigeration facilities are needed to transport the fish catch from the coasts to the big inland markets.

Netherlands.—The United States and the Netherlands Governments recently reached agreement on a $1½ million grant from the so-called Moody fund, with about $526,000 destined for improved marketing and distribution of fish and other products. The program aims to raise efficiency in the fish canneries and to provide loans for retailers to improve shops and purchase containers and other selling equipment for fish.

Panama.—A new over-all fishing law was transmitted to the Panamanian National Assembly and the President of Panama requested early and favorable consideration of the bill.

Perhaps the most important single provision of the measure from the international standpoint is that it seeks to extend Panamanian jurisdiction and control outward to the edge of the continental shelf.

The proposed bill apparently involves little or no change in existing bait-fishing regulations except to extend Panamanian jurisdiction to the edge of the continental shelf, to require all vessel repairs to be done in Panamanian repair shops, and to increase sharply all penalties for bait fishing without the required Panamanian license, even to the point of confiscation of an offending vessel under certain circumstances.

Peru.—There are four companies operating shrimp fishing vessels in offshore waters from Puerto Pizarro, Peru, the U. S. Embassy at Lima reports. These companies operate a total of 16 fishing vessels, mostly former tuna purse seiners with a beam trawl with a spread of 22 feet. In addition, there are two freezerships with freezing capacities of 6 to 10 metric tons of shrimp a day and a storage capacity of about 200 metric tons. Puerto Pizarro is near Tumbes and practically on the border with Ecuador.

Philippines.—The Government of the Philippines is seeking free trade agreements with the United States covering a number of commodities, but no fishery products are on the present list. Under the Philippine Trade Act of 1946 U. S. articles are exempt from custom duties, but the free provisions of this Act are due to expire July 4, 1954, when duties would start at 5% of the regular amount and increase 5% each year until at the end of 20 years the full basic rates of duty would apply. Now free of duty, canned salmon, sardines, mackerel and herring would become dutiable at 15% ad valorem; other fishery products up to 25%.

SKIPJACK *In Hawaiian Waters*

The U. S. Fish and Wildlife Service fisheries research vessel *Hugh M. Smith* recently completed the last of a 3-week series of skipjack (aku) scouting cruises in Hawaiian waters, part of a long-term program of study designed to aid the expansion of the local tuna fishing and canning industry.

According to Mr. O. E. Sette, director of the Service's Pacific Oceanic Fishery Investigations, the results of this most recent cruise indicate that the abundance of skipjack in Island waters has already fallen to its characteristically low winter level. In 13 days of intensive searching over an area extending 250 miles northeast and 300 miles southwest of Oahu. observers aboard the *Smith* sighted only 14 schools of fish, only 2 of which were positively identified as skipjack schools.

In the areas beyond 30 miles from land, where it is hoped that new commercial fishing grounds will be developed through this research program, skipjack were found to be less numerous than at any time since systematic scouting was begun in November 1952. This scarcity is, however, the culmination of a seasonal trend shown by a gradual decline in the number of sightings during the past several months.

Mr. Tamio Otsu, chief scientist aboard the *Smith* reported that during the course of the cruise several flocks of birds were seen migrating to the south and west at speeds estimated to be as high as 40 to 60 miles per hour. It is speculated that the birds may be following the tuna schools south, perhaps to the vicinity of the Line Islands, or that both the birds and the skipjack may be migrating to the equatorial region in response to a shift in the abundance of the small fish and squid on which they both feed.

A third possibility is that there may be only an apparent scarcity of tuna in the Hawaiian area, caused by an actual scarcity of the sea birds on which the local fishermen rely almost exclusively as indicators of tuna schools. In other words, there may be as many tuna around the Islands as ever, but so many birds have migrated south that many of the schools are no longer accompanied by the bird flocks that reveal their presence to the fishermen.

Captain Gordon Wilkinson states that the *Smith* is due for her mid-winter drydocking after which time she will be outfitted for a cruise to the north of the Hawaiian Islands in search of albacore tuna. This cruise, which is scheduled for January and February, will be the first of its kind by American research boats and is designed to provide evidence of concentrations of tuna in subtropical waters.

Japanese Exports

There was a substantial increase in Japanese exports of canned fish during the first six months of 1953. Tuna in brine increased by 151,000 cases over the January-June period in 1952, crab meat by 31,000 cases, oil-packed tuna by 82,000 cases, sardines in tomato cause by 100,000 cases. Other canned goods exports declined slightly, but there was an over-all net increase in exports of all canned goods.

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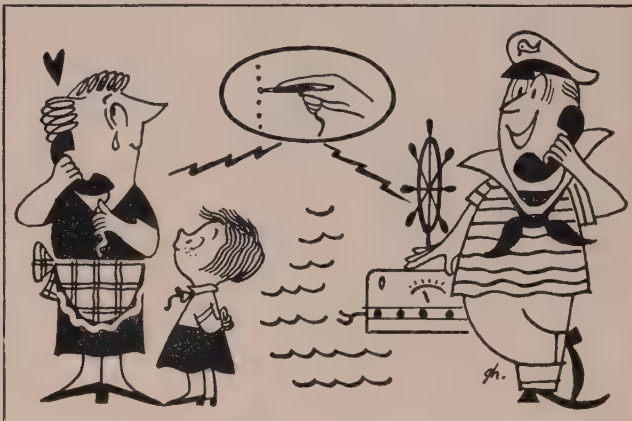

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EBB 'n FLOW

Diesel-Electric Drive

Man has always been faced with the problem of transporting himself and his possessions over water. Of course, speed and economy were the ever important factors in meeting this problem, and the progressive evolution of water transportation has been directly related to progress of every nation in the world.

Evolution continued through the years: oars to sail; sail to steam; and finally, in 1902, the first marine Diesel engine was built. This important development was closely observed by the shipping industry throughout the civilized world. Naturally many refinements have taken place, not only in the engine itself, but also in the application of the power produced by the engine.

Undoubtedly a forward step in the successful application of Diesels for marine propulsion was the development of Diesel-Electric Drive. It solved the problem of selecting the most suitable engine for the required propeller speed and horsepower. This type of drive allowed the use of small, high speed Diesel engines, as the electrical system in itself effected the necessary reduction between engine speed and the speed of the propeller. The coming of Diesel-Electric Drive permitted considerable progress in weight reduction of the unit and also the use of smaller engines in multiple units. One of the pioneers in this field, and a continuing leader in it, is the Cleveland Diesel Engine Division, General Motors Corp., Cleveland 11, Ohio.

New Small Diesel Engine

Repowered with a new small opposed-piston marine diesel, first of its kind to see actual service, the 94-foot "Holy Family" was changed from one of the slowest to one of the fastest fishing boats of her size. She now is not only 20% faster but can carry 32% more fish per trip and is returning bigger profits to owners and crew alike.

This small OP engine was specifically developed by Fairbanks-Morse for boats too small to take advantage of the larger OP's operating efficiency and economy. The new model has a 5¼-in. bore and 7¼-in. stroke and is manufactured in sizes from 225 to 750 hp. The engine on the "Holy Family" is a 7-cylinder unit rated at 525 hp. at 1200 r.p.m. and 455 hp. at 1100 r.p.m. for dragger service.

Although it provides 42% more power, the new engine is only half as long and less than half the weight of the 320-hp. diesel it replaced in the "Holy Family." Its compact design increased the vessel's total cargo carrying capacity from 125,000 to 165,000 lb.

The engine is a complete packaged marine unit equipped with air-actuated remote controls, heat exchanger, lube cooler, air compressor, pumps and filters. It drives through reverse-reduction gears and has a forward end power take-off with clutch to drive generator and winch.

New Bilge Cleaner

Two new products for boat owners —*"Cawkleen"* a new bilge cleaning concentrate that keeps bilges clean and free from odors automatically, and *"Cawstain"* a deep penetrating stain for plywood and close grained woods, have been announced by the C. A. Woolsey Paint & Color Co. Inc., 229 East 42nd St., New York City.

Plastic Net Float

A new fishing net float made of an expanded plastic material and possessing unusual buoyancy has been put on the market by a British firm. It is said that no repairs or maintenance are needed for the new float which is very light in weight, vermin-proof, odorless, non-inflammable, resistant to gasoline, oil, and most chemicals; also, it will not support the growth of molds or bacteria.

Tests were carried out by the Norwegian Fishery Directorate with various floats sunk to depths of about 400 feet. It was found that while cork floats became waterlogged and Norwegian plastic floats were compressed to less than half size, the new British plastic floats were completely unaffected.

Tests have shown that one of these floats of one cubic foot will support a weight of 60 pounds in water indefinitely. After two weeks of complete immersion in water of 65° F., the moisture absorption was only 0.15% by volume.

Fuel Filter

A new patented filter for marine use which removes 100% of water from Diesel and other fuels is said to function entirely different from any other fuel filter and to be a most important Diesel engine protective maintenance development.

The Fram Water Separator & Fuel Filter is a combination unit mounted in series consisting of a fuel filter and water separator unit both using replaceable cartridges.

In recent years, the presence of water in Diesel fuel has been discovered to be as dangerous as solid contaminants.

The new unit can be quickly and easily installed on marine Diesel engines. Sold under a money-back guarantee, it is expected to cut injector maintenance costs, reduce "down time," and lengthen the life of marine Diesel engines. For further information write Fram Corporation, Providence 16, Rhode Island.

Conklin Buys Business

The Fish Net & Twine Co., Jersey City, N. J., was sold to Walter F. Conklin, effective at the close of business December 31, 1953.

Former President Lewis Lichtenstein is retiring from active business but will serve on the board of directors.

Mr. Conklin is well known in the commercial fishing industry having been associated with the R. J. Ederer Co., Inc., Chicago, Illinois, during the past 23 years.

Hart & Burns Research

Clem Einbecker was recently added to the research staff of Hart & Burns, Inc., marine paint manufacturers of Riverside, Calif.

He formerly was with one of America's largest paint manufacturers and also spent nine years in the Los Angeles area as special formulator and production supervisor in charge of several major industrial accounts.

In making the announcement, Vice President A. E. Burns, Jr., said that the appointment of Einbecker was another step forward in the company's policy of providing up-to-the-minute formula improvements.

TIDES OF THE INDUSTRY

San Diego Strike Ends

The 35-day strike that idled nearly 2,000 employees at seven of San Diego's shipyards ended early in January after negotiators for the shipyards and AFL unions agreed upon a settlement of six paid holidays annually, and an across the board wage increase of 3-cents-an-hour starting immediately, and an additional 2-cents-an-hour starting on July 1.

The contract is good through June 30, 1955, and includes a 10-cents-an-hour premium for welders of galvanized and non-ferrous metals. Carpenters were struck at six of the yards and machinists at all seven. Painters and electricians observed picket lines.

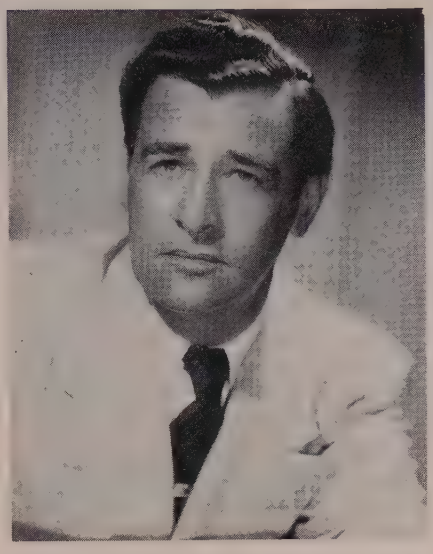
Involved in the dispute were Carpenters Local 1300, Electricians Local 569, Painters Local 333, and Machinists Local 389. Yards or services affected were National Steel & Shipbuilding Corporation, Martinolich Ship Building Company, San Diego Marine Construction, Campbell Machine Company, Harbor Boat & Yacht Company, William Kairot Company, and Diesel Technical Service. The Shepherd Diesel Company struck temporarily but reached an early agreement on the same terms.

The strike started December 1st. Original demands of the unions called for a 20-cent-an-hour package increase, or 10-cents-an-hour and the six paid holidays later granted. Pay scales are now established from $1.75 to $2.21 per hour.

British Imitation Salmon

Further details on the processing of herring to resemble canned salmon in taste, smell, and appearance were reported recently from London. It appears that the process consists of "mixing bones, cooked herring and other fish, adding salts, spices, a coloring matter, and emulsifying salts."

The product is sold under the name of "Samon" and production has been on a limited scale thus far. The product has been tested and found quite acceptable for sandwiches, but is not expected to become a serious competitor of canned salmon.



PHIL BERTRAM

Van Camp Fleet Captain

New fleet captain of the Van Camp Seafood Company cannery in San Diego is Phil Bertram, who has been with the company in other capacities for some time.

Bertram succeeds Henry Olsen who has retired after 25 years with Van Camp and a lifetime association with commercial fishing interests. Olsen was skipper of the Bergen, first tuna fleet mothership operating out of San Diego.

Joint Fisheries Promotion

United States, Canadian, and Norwegian fishery interests have launched a joint fisheries promotion program, reports the National Fisheries Institute. The newly-formed N. F. I. Public Relations Committee, composed of members of United States, Canadian, and Norwegian firms are operating through an advertising agency in New York City.

This is a result of the decision of the National Fisheries Institute's board of directors made at their last annual convention in Washington to invite firms from Canada, Iceland, and Norway to join the institute in its fisheries promotion program.

Japan Seeks U. S. Anchorage for Tuna Vessels

A request for permission to use as an anchorage for about 20 fishing boats and three refrigerated transport ships some harbor or shelter to be designated by the United States authorities in the U. S. Trust Territories south of Lat. 10° N. was made recently by the Japanese Government for a Japanese fishing firm. The operations would last about six months.

The purpose is to transship catches from the fishing boats to the refrigerated transport vessels in the harbor or shelter; and to provide necessary supplies and provisions from the transport vessels to the fishing boats.

The petition states that if the request is granted the following will be strictly observed:

a. No personnel will be landed.

b. No fishing will be conducted in the territorial waters of the U. S. Trust Territories.

c. No contact or exchange of goods will be made with foreigners.

A report indicates that if the request should be granted it would permit an extension of the Japanese tuna and bonito fisheries outside the overfished Japanese coastal waters by allowing fleets of small-sized (100 tons or less) fishing craft to transship their catches to refrigerator ships in the fishing area, thus obviating the need for return to Japan.

"See-Thru" Drawer Cabinets

A complete line of "See-Thru" drawer cabinets is available for small-parts filing and storage.

The popular Model J-20 consists of 20 clear plastic drawers in a steel cabinet. The latter is finished in silver-gray and has rubber feet. Adjustable drawer dividers and identification labels are included.

Other models range from 8 to 128 drawers in size. Made by General Industrial Co., 5738 N. Elston Ave., Chicago 30, Illinois.

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New Officers and Directors . . .

American Tunaboat Association

The American Tunaboat Association of San Diego held its annual election of officers early this month. Wade Ambrose succeeds Edward X. Madruga as president, it was announced by Harold F. Cary, general manager of the Association.

Other officers are Joseph Penacho, vice president; Manuel E. Simas, secretary, and Edward P. Silva, treasurer. Steve Stagnaro and Joaquin Medina, have been added to the board of directors which carried over from last year.

Research On Christmas Island

The research vessel *John R. Manning* of the U. S. Fish and Wildlife Service recently returned to its home port of Honolulu, bringing back a party of scientists and fishermen who had spent the past two months on Christmas Island installing meteorological instruments and automatic sea water temperature recorders on that equatorial atoll.

According to Mr. O. E. Sette, Director of the Pacific Oceanic Fishery Investigations, Christmas Island is strategically located in the heart of the rich tuna fishing grounds recently found to the south of Hawaii, and the information recorded by the instruments installed there should be of great value in studying the environmental changes that affect the abundance of yellowfin tuna in equatorial waters.

The newly discovered fishing grounds are beginning to attract the attention of mainland and Hawaii tuna fishermen, and the water temperature and weather data collected by POFI scientists will be used to predict the best seasons and areas for commercial fishing operations.

Setting up the recording thermometers involved the building of two steel towers on the reef, one on the windward and one on the leeward side of the island, and skin diving to anchor the sensitive elements in deep water off the face of the reef. The chief scientist, Joseph E. King, trained three Gilbertese residents to tend the instruments and keep the records. Meteorological instruments were loaned by the Honolulu office of the U. S. Weather Bureau, which will use the reports from this remote and isolated station to fill in its coverage of the general central Pacific weather picture.

The field party also found time to survey the lagoon on Christmas Island, one of the most extensive in the Pacific, for stocks of small fish suitable for use as live bait for tuna fishing. Little bait of this type was found, but there were plentiful supplies of larger mullet and milkfish (awa) that could be used for longline (flagline) bait.

The *Manning*, commanded by Robert E. K. Lee, spent 14 days fishing longlines for tuna en route to and in the immediate vicinity of Christmas Island. Fishing was particularly good near the island where the yellowfin were of the smaller sizes preferred by canners. A total of 5½ tons of yellowfin was landed at Honolulu at the Hawaiian Tuna Packers cannery.

This cruise marked the first attempt by the Government research agency to fish the equatorial waters south of Hawaii during December. The good yellowfin catches taken at this time of the year may open the possibilities of a winter fishery for the local fishing fleet.

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Tuna Industry Review and Preview

(Continued from page 11)

first half of 1953, one tuna vessel made an exploratory trip into the Central Pacific area of the Marquesas and Tuamoto and Society Islands. Another made an exploratory fishing trip in the Western Central Atlantic, east of Trinidad.

The possible desire of the market for more canned tuna, plus the exploratory work done in Hawaii and by these tuna clippers during 1953, will result in a good deal of further exploratory work during the first part of 1954. At least two expeditions, and possibly three, will go longlining for tuna in the Central Pacific, east of Christmas Island and vicinity. Two or three bait boat tuna clippers are expected to undertake exploratory trips into the Marquesas and Tuamotos and Society Island area and it is possible that one or more will also go into the Western Atlantic area.

Aside from these commercial exploratory trips, in 1954 there will be three research vessels working jointly in the area between Hawaii and Southern California to explore the possibilities of developing a longline fishery for albacore. Another research vessel will make a trip south from Southern California to the Tuamoto Islands area, prospecting for longline tuna and for bait fish for bait boat clipper fishing in the area of Southeast Polynesia.

Tariff

Efforts initiated by the industry in 1951 carried on to 1952 to obtain some tariff relief and protection against Japanese imports failed of passage by a very narrow margin in the United States Senate because of vigorous opposition and lobbying by the U.S. Department of State.

Other bills were introduced during 1953 to obtain the same objective. No extended effort was made by the industry to secure their passage during 1953, however. What may be done in this regard in 1954 is not presently known, but some tariff protection is necessary to protect the Southern California industry and maintain it on a profitable basis.

Relocation

During past years there has been considerable effort expended to relocate the industry at other places. During 1948, 1949, and 1950 several attempts were made to move sections of the industry into several of the Latin American countries. All of these failed. In 1951 and 1952 there was the beginning of a trend to ship tuna to the Mississippi and Carolina and Massachusetts areas for canning. In 1953 these efforts came to an end through financial difficulties.

It has become increasingly evident, as a result of the activity of several individuals and firms during the past five years, that the most economical way to produce a volume of tuna from the Eastern Tropical Pacific Ocean is in Southern California. Efforts made to base vessels elsewhere have failed for one reason or another. The plant at Pascagoula, Mississippi, has never been completed.

Competition

A cannery planned for Columbia has never been erected. The one in Costa Rica is operating at very low level production. None of the several schemes for developing canning operations in Ecuador have come along; all are now defunct. The fish canning industry in Peru, which built up after the war and is based primarily upon bonito, has fallen upon difficult times because of competition in U.S. markets from Japanese tuna canned in brine.

The bonito industry is having a hard time meeting this competition. All in all, it now appears there should be no question that the canning of tuna from the Eastern Tropical Pacific for U.S. markets will be done exclusively in Southern California, with fish taken mostly by Southern California vessels.

Legislation

During the past year the most important legislation affecting the tuna industry was the twin acts: one covering the tidelands oil, and the other covering the continental shelf jurisdiction. Our industry was primarily interested in both of these bills from the standpoint of not permitting either or both to change the breadth of territorial seas.

The U.S. policy since early colonial days has been that the territorial sea is three miles wide measured from the low tide mark, that all of the ocean outside this boundary is the high seas, and that the living things in the high seas are the property of no nation nor under the jurisdiction of no nation but the property of all or those who can take them. The tuna industry was able to have that policy retained unaffected by the tidelands bill or by the continental shelf act. *

Last Month's Cover

Credit for last month's front cover illustration was crowded out of our December issue. It showed San Diego Bay at sunset, with the tuna boats as an important factor. Illustration by courtesy of Solar Aircraft Company's house organ, "Solar Blast" . . . from a camera study by Charles Cummings which has been widely shown.

AUSTRALIAN CANNED FISH PACK

The total pack of Australian canned fish in 1952-53 amounted to over 7.5 million pounds—7% more than the 1951-52 pack, says an Australian Government fishery report. Barracuda and Australian salmon, as usual, comprised the bulk (87%) of the production.

Species	1952-53 Lbs.	1951-52 Lbs.
Australian salmon	3,938,021	3,089,803
Barracuda	2,629,439	3,269,900
Tuna	386,230	142,057
Whitebait	73,623	50,577
Other	550,136	520,096
Total	7,577,449	7,042,433

U. S. Well Represented At

FAO Conference

In Rome Last Month

NUMEROUS fishery matters of interest to the domestic industry were discussed at the Seventh Session of the FAO Conference which concluded its meetings in Rome, Italy, in December.

A. W. Anderson, Br. of Commercial Fisheries, Fish and Wildlife Service, and Charles R. Carry, Director, Fishery Products Division, National Canners Association, were the fishery advisers on the U. S. Delegation. The former was elected Chairman of the Fisheries Panel and the latter acted as U. S. spokesman, with representatives of about 30 countries participating.

The Report of the Fisheries Panel expressed general satisfaction with the progress of the program of the Fisheries Division of FAO with certain recommendations as to future emphasis. It called attention to a lengthy article, "Improving the Fisheries Contribution to World Food Supplies" in the September-October issue of FAO's *Fisheries Bulletin*. This detailed article indicates that world fisheries can be increased substantially but lists many problems which must be solved.

In general, the Fisheries Panel stressed projects that would obtain quick results, such as promotion of fish cultural practices, improved management of inland fisheries, and work towards improving fishing boats, landings, marketing and distribution facilities, fishing gear and methods, especially in those countries in which there was need to increase protein food supplies for the indigenous population.

In addition, the Fisheries Panel also emphasized the value of the preparation of a world series of fisheries maps in connection with the proposed Survey of Marine Resources, and suggested that international cooperation in the exploration of unexplored areas be placed before the Meeting on Fishery Resources to be convened in 1955.

The very successful recent meetings of the International Fishing Boat Congress were noted and the Division was complimented for its initiative in preparing a Handbook on Fishing Boat Design, based on the papers presented and the ensuing discussions.

In the economics field the Fisheries Panel emphasized that the solution of marketing problems and the development of efficient distribution facilities were equal in importance to increasing production.

The Conference concluded that "In most countries with developed fisheries industries, production has levelled off in the last two years owing to increasing difficulties in disposing of fishery products for human food, though there has been a continuing strong demand for fish meal for animal feeding. In less developed fisheries areas, increases of considerable local significance have been achieved due to improved catching methods, but inadequate marketing facilities and purchasing power have retarded development."

The Conference noted that although the fisheries resources of the world contribute only about 10% of the total human intake of animal protein, these resources could undoubtedly make a much larger contribution to world food supplies. In certain parts of the world, techniques have already been developed in the culture, capture and utilization of fish supplies which could quickly bring about a considerable increase.

Advanced fishing industries already have the capacity to produce up to the level required to meet the 1960 targets set forth in the FAO Second World Food Survey, but lack the incentive of profitable marketing opportunities. The increase in productive capacity must, therefore, take place mainly in those areas where the fisheries industries are largely under-developed, where protein needs are most urgent and where low levels of economic activity and education have hitherto restrained the application of modern commercial practices and equipment.

The Conference recommended that Member Governments should promote measures designed to increase the availability and consumption of fish and its products—at costs commensurate with the purchase power of the potential consumers—and report frequently and comprehensively on the progress achieved and the problems encountered. *

Tuna in Indian Ocean

According to a dispatch from the American Consulate, the first Japanese tuna expedition to the Indian Ocean got under way last month. The fishing fleet is composed of 10 mother ships, two small fishing boats, two launches and one survey boat. Half of the ships, including the 3,650 ton refrigerator ship *Ginyo Maru*, are from Hokkaido.

The expedition will operate principally in the area of Timor in the Indian Ocean and will spend some time en route fishing in the vicinity of Formosa. Operations will continue for approximately two months. The plan is to fish in the Indian Ocean around 10° S., 118° E. for yellowfin, marlin, albacore, sharks, and Indian tuna. The production goal is 1,860 tons, worth about $400,000.

(Continued from page 8)

This is something new with which Alaska's biggest private industry will have to deal this winter. Alaskans have just ended their shortest pack since 1921, a pack so short that an appeal was made to the White House for emergency aid to tide the fishing area over until next season.

The FTC charges name 11 fishermen's unions, 43 fish-canning industries, and the industry's trade association, Alaska Salmon Industry, Inc., Seattle, Wash., as having carried on unlawful price-fixing and other restraining practices in violation of anti-trust laws.

This is one that won't be settled immediately--unless the industry accepts a consent settlement from FTC, which the group charged shows no sign so far of considering. Answers to the complaints flooding into Washington deny the charges and ask dismissal.

FTC has set January 18 in Seattle for a hearing on the alleged conspiracy, which the Agency says has been going on since 1946. It it likely the date will be moved up later, however.

Details of the general actions which the FTC says are illegal:

1. The combination has the "capacity and tendency to substantially increase" the price of canned salmon to consumers.

2. "Uniform minimum prices" for the purchase and sale of salmon have been maintained by agreement. FTC says this aspect is a "dual conspiracy"--one between the canners and another between the canners and the fishermen's unions.

These practices, the Commission charges, have enabled the industry to maintain an understanding "to adopt, fix and adhere to certain practices and policies which restrict and restrain competition."

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SECRETARY McKAY AND TIDELANDS.--The stand taken by Brownell also makes it clear that Secretary of Interior McKay, who presides over Fish & Wildlife Service and was also named in the Alabama suit, will not file on the side of the fishermen.

Secretary McKay, who earlier assured the fishing industry that the tidelands transfer to the states could be made "without changing the regulation and control of fisheries in our coastal waters," asked Brownell to assume the Interior position for him.

Actually, the tidelands law, if it stays on the books, will necessitate a complete change in the regulation and control of fisheries in the coastal waters. The argument over this has already begun between the states involved.

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WORLDWIDE REPERCUSSIONS GROWING.--Continuing to be borne out are the original predictions by National Fisheries Institute that extension of exclusive fishing rights beyond the present three miles offshore the U.S. would lead to retaliation by other countries.

Latest added to growing list of countries considering an extension of their offshort limits are:

1. Norway and Iceland, who are attempting to impose bans, controls and other restrictions outside present three-mile limits.

2. Denmark is trying to extend its fishing limits from three to four miles.

Reported earlier were: Australia, which has imposed strict territorial control over pearl fishing in the waters of its continental shelf; Canada, which has only threatened reprisals; South Korea, which has set up the "Rhee Line," 60 miles off its coast, in which only Korean boats may fish.

The growing list is now reported to have set up demands by British fishermen for a 12-mile limit.

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SALMON SITUATION.--Terms of the agreement entered into for this purpose, as reported by FTC are:

(a) to fix the price paid fishermen for raw salmon in the various fishing districts;

(b) to prevent "any and all" price competition among themselves in buying from the fishermen;

(c) to maintain uniform minimum prices for both the sale and the purchase of salmon;

(d) to refrain (agreement among canners) from individually bargaining with the fishermen's unions or individual members for the purchase price of salmon;

(e) to authorize Alaska Salmon Industry Inc. to negotiate contracts with the unions fixing the seasonal prices to be paid for salmon.

How the conspiracy affects individual fishermen, according to the Commission: Prevents "individual salmon fishermen from selling" to canners except at the price set in the contracts and also stops any salmon from being sold unless the contracts are agreed to.

What the final outcome of the action will be, no one here is willing to predict. If the salmoners fight the case through, it may take a year. In the meantime, the answers to the complaints we have seen admit some of the facts charged but argue they are not illegal.

If the Commission won't go along with this, the battle may finally be fought out in court.

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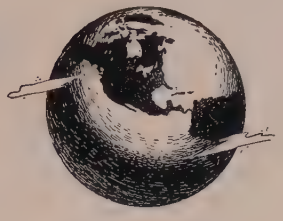
NEW FISH FOOD.--The Fish and Wildlif e Service sees the reduction of Pacific hake into a commercial fish oil and meal as a possible way to develop untapped West Coast fishery resources.

The experts base their opinion on recent action by the California Fish and Game Commission in granting a permit for the reduction of Pacific hake into oil and meal. This is the first time such a permit has been issued for hake. The firm receiving the permit plans to manufacture a new kind of processed food from the hake.

INSURING THE PRESENT

. . . AND THE FUTURE



As In the Past So In the Future

All Activities of the American Tunaboat Association

Are Directed to Improvement and Prosperity

Of the Tuna Industry

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★ Last year California fishermen led the nation by landing 1.3 billion pounds of fish and shellfish, valued at $81,605,112 to the fishermen.
—Report No. 393, Fish and Wildlife Service United States Department of the Interior

The above 81½ million dollars, after processing and passing the fish through trade channels to consumers, is estimated at more than 250 million dollars total valuation . . . most of which was the tuna and tunalike fishes of Southern California ports which are covered by this magazine most completely.

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"Business Magazine of the West Coast Fisheries"

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Territorial Limits

Following the lead set by Norway and Iceland, countries in various parts of the world are attempting to impose bans, controls, and restrictions on fishing in waters outside present three-mile limits. This has caused some concern to the British fishing industry, and is interesting here because the trend seems to be spreading.

Following are the latest proposals:

(1) Faroe Islanders have asked the Danish Government to negotiate with Britain a "four-mile" offshore limit to fishing around the Islands.

(2) The Australian Government has imposed strict territorial control over pearl fishing in the waters of the Continental shelf.

(3 Six Scottish M.P.'s have tabled a motion in the House of Commons to close to foreign trawlers (as they are closed to British fishermen) the fishing grounds of the Moray Firth, Minch, and Clyde.

(4) Fishermen at Harwich and Whitstable are urging that a 12-mile limit should be imposed to keep out French fishermen or, failing that, a line should be drawn from Harwich to Dover to protect the Thames Estuary.

(5) British trawlermen are expressing fears that Greenland will be the next to seek an extension of territorial limits.

(6) President Syngman Rhee has imposed the "Rhee line," 60 miles off the South Korean coast, inside which only Korean vessels are allowed to fish.

Survey on Hake

An interesting finding from survey cruises of the agencies participating in the California Cooperative Oceanic Fisheries Investigations is that the most abundant larvae collected are those of hake, *Merluccius productus.* While interested primarily in studying distribution and abundance of sardine spawning, and survival of sardine larvae in relation to oceanographic conditions, the hake is one of the ecologically associated species about which information is also being collected.

The hake probably represents our largest latent fishery resource, for there is no commercial fishery for this species off our West Coast, according to FWS. The objection to hake as a market fish is the softness of its flesh. However, related species of hake support important fisheries off Europe, South Africa, our Atlantic coast, and off Chile. A state permit has recently been issued to a California plant operator for experimental reduction of hake to fish meal and oil.

Hake larvae have a widespread distribution, from Oregon to Cape San Lucas, Mexico, and offshore for at least 400 miles. The center of greatest abundance is off Southern California and adjacent Lower California, between Pt. Conception and San Quintin Bay. About 98% of hake larvae each season have been obtained during February, March and April.

Although hake larvae are commonly taken in hauls containing sardine eggs and larvae, the two species do not appear to compete directly. Hake larvae are seldom taken above the 50-meter level while sardine larvae rarely occur that deep. Most hake larvae occur within a 5° temperature range, 10-15° C., with the optimum temperature about 13° C. Sardine eggs and larvae are usually taken in somewhat warmer water, 13-17° C., with the optimum temperature about 15° C.

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...before it TALKS

. . . is the way our doctors put it—"Our chances of curing cancer are so much better when we have an opportunity to detect it *before it talks.*"

That's why we keep urging you to make a habit of having periodic health check-ups, no matter how well you may *feel* . . . check-ups that *always* include a thorough examination of the skin, mouth, lungs and rectum and, if you are a woman, the breasts and generative tract. Very often doctors can detect cancer in these areas long before the patient has noticed any symptoms in himself.

The point to remember is that most cancers are curable if properly treated before they begin to spread, or "colonize" in other parts of the body. . . For other life-saving facts about cancer, phone the American Cancer Society office nearest you or write to "Cancer"—in care of your local Post Office.

American Cancer Society

STANDARD ENGINEER'S REPORT

DATA

LUBRICANT Heavy Duty RPM Motor Oil

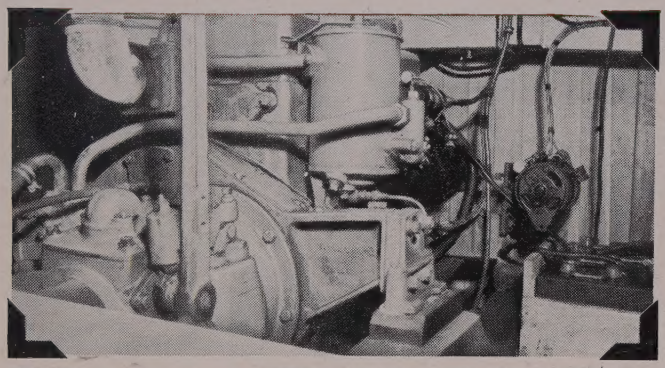
UNIT 115 H.P. marine engine

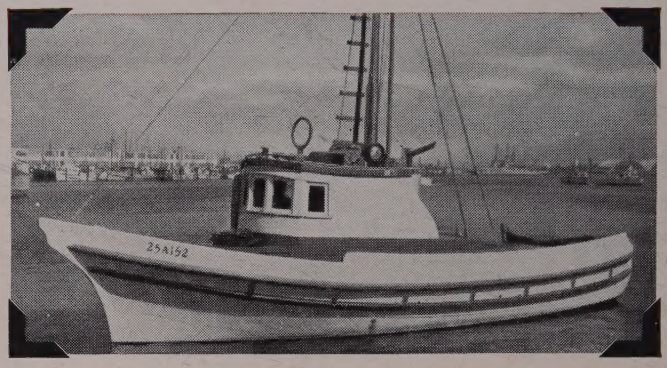
SERVICE Fishing boat "Four Brothers"

CONDITIONS Low engine temperatures—constant load

FIRM V. Passanisi & Son San Diego, Calif.

Engine clean after 1⅓ years of "cold" operation!

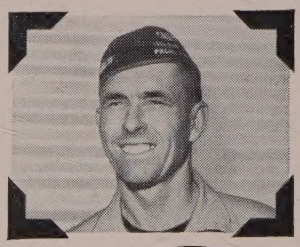




HEAVY DUTY RPM MOTOR OIL has kept this 115 H.P. marine engine clean and running perfectly for 16 months, despite tough work 10 hours a day, 5 days a week. The engine powers the 32 foot, 10 ft. beam fishing boat, "Four Brothers," operated by V. Passanisi and his son, Frank. When inspected recently, engine showed no deposits, all rings and bearings were in good condition.

FRANK PASSANISI says, "Carbon is a common problem in most fishing boat engines because they work 'cold'—at temperatures too low for best operation. However, Heavy Duty 'RPM' solved that problem for us. The way our engine runs now, we should be able to go 5 years before thinking of an overhaul."

MECHANIC E. B. DAVIS, owner of Rosecrans Garage, San Diego, says, "When I opened this engine to grind the valves, it was the cleanest I'd ever seen in this type. There were no signs of wear in cylinders or on pistons."

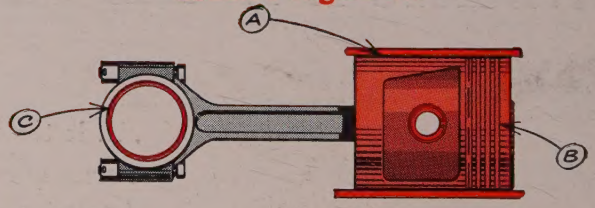


REMARKS: Heavy Duty RPM Motor Oil was developed through atomic research to prevent extra wear. It keeps engines clean of carbon and lacquer, resists the formation of deposits, prevents corrosion, and stops foaming in the oil systems. Comes in several grades.

HEAVY DUTY RPM MOTOR OIL

TRADEMARK "RPM" REG. U.S. PAT. OFF.

How Heavy Duty RPM Motor Oil doubles engine life



A. Contains special compounds that keep lubricant on metal whether hot or cold—reduce starting and running wear and rusting when idle.

B. Detergent makes carbon and soot contaminants harmless—keeps rings free, engine clean.

C. Resists oxidation and corrosion, stops foaming.

STANDARD TECHNICAL SERVICE checked this product performance. For expert help on lubrication or fuel problems, call your Standard Fuel and Lubricant Engineer or Representative; or write Standard Oil Company of California, 225 Bush St., San Francisco.

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